# DEA Position on Marijuana



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### THE DEA POSITION ON MARIJUANA

The campaign to legitimize what is called "medical" marijuana is based on two propositions: first, that science views marijuana as medicine; and second, that the DEA targets sick and dying people using the drug. Neither proposition is true. Specifically, smoked marijuana has not withstood the rigors of science—it is not medicine, and it is not safe. Moreover, the DEA targets criminals engaged in the cultivation and trafficking of marijuana, not the sick and dying. This is true even in the 14 states that have approved the use of "medical" marijuana.<sup>1</sup>

On October 19, 2009 Attorney General Eric Holder announced formal guidelines for federal prosecutors in states that have enacted laws authorizing the use of marijuana for medical purposes. The guidelines, as set forth in a memorandum from Deputy Attorney General David W. Ogden, makes clear that the focus of federal resources should not be on individuals whose actions are in compliance with existing state laws, and underscores that the Department will continue to prosecute people whose claims of compliance with state and local law conceal operations inconsistent with the terms, conditions, or purposes of the law. He also reiterated that the Department of Justice is committed to the enforcement of the Controlled Substances Act in all states and that this guidance does not "legalize" marijuana or provide for legal defense to a violation of federal law. While some people have interpreted these guidelines to mean that the federal government has relaxed its policy on "medical" marijuana, this in fact is not the case. Investigations and prosecutions of violations of state and federal law will continue. These are the guidelines DEA has and will continue to follow.

# THE FALLACY OF MARIJUANA FOR MEDICINAL USE

### SMOKED MARIJUANA IS NOT MEDICINE

There is no sound scientific evidence that smoked marijuana can be used safely and effectively as medicine. Congress enacted laws against marijuana in 1970 based in part on its conclusion that marijuana has no scientifically proven medical value. The Food and Drug Administration (FDA) is the federal agency responsible for approving drugs as safe and effective medicine based on valid scientific data. The FDA has not approved smoked marijuana for any condition or disease. The FDA noted that "there is currently sound evidence that smoked marijuana is harmful," and "that no sound scientific studies supported medical use of marijuana for treatment in the United States, and no animal or human data supported the safety or efficacy of marijuana for general medical use."

In 2001, the Supreme Court affirmed Congress's 1970 judgment about marijuana in *United States v. Oakland Cannabis Buyers' Cooperative et al.*, 532 U.S. 438 (2001), which held that, given the absence of medical usefulness, medical necessity is not a defense to marijuana prosecution. Furthermore, in *Gonzales v. Raich*, 545 U.S. 1 (2005), the Supreme Court reaffirmed that the authority of Congress to regulate the use of potentially harmful substances through the federal Controlled Substances Act (CSA) includes the authority to regulate marijuana of a purely intrastate character, regardless of a state law purporting to authorize "medical" use of marijuana.

On March 27, 2006, Raich submitted an appeal to the United States Court of Appeals for the Ninth Circuit seeking declaratory and injunctive relief based on the alleged unconstitutionality of the CSA,

and a declaration that medical necessity precludes enforcement of the CSA against her. The court heard this matter on remand following the Supreme Court's decision in Gonzales v. Raich, 545 U.S. 1 (2005). On March 14, 2007, the Ninth Circuit ruled that a terminally ill woman (Angel Raich) using marijuana was not immune to federal prosecution because of her condition. This decision reaffirms that medical marijuana users and their suppliers could be prosecuted for breaching federal drug laws even if the state they live in has made it legal to do so.<sup>4</sup>

In a show of international support for the U.S. Supreme Court's Raich decision, the International Narcotics Control Board (INCB) issued a statement urging other countries to consider the real dangers of cannabis. "...Cannabis is classified under international conventions as a drug with a number of personal and public health problems. It is not a 'soft' drug as some people would have you believe. There is new evidence confirming well-known mental health problems, and some countries with a more liberal policy towards cannabis are reviewing their position. Countries need to take a strong stance towards cannabis abuse."

The DEA and the federal government are not alone in viewing smoked marijuana as having no documented medical value. Voices in the medical community likewise do not accept smoked marijuana as medicine:

- The American Medical Association (AMA) has always endorsed "well-controlled studies of marijuana and related cannabinoids in patients with serious conditions for which preclinical, anecdotal, or controlled evidence suggests possible efficacy and the application of such results to the understanding and treatment of disease." In November 2009, the AMA amended its policy, urging that marijuana's status as a Schedule I controlled substance be reviewed "with the goal of facilitating the conduct of clinical research and development of cannabinoid-based medicines, and alternate delivery methods." The AMA also stated that "this should not be viewed as an endorsement of state-based medical cannabis programs, the legalization of marijuana, or that scientific evidence on the therapeutic use of cannabis meets the current standards for prescription drug product."
- The American Society of Addiction Medicine's (ASAM) public policy statement on "Medical Marijuana," clearly rejects smoking as a means of drug delivery. ASAM further recommends that "all cannabis, cannabis-based products and cannabis delivery devices should be subject to the same standards applicable to all other prescription medication and medical devices, and should not be distributed or otherwise provided to patients ..." without FDA approval. ASAM also "discourages state interference in the federal medication approval process."
- The American Cancer Society (ACS) "does not advocate inhaling smoke, nor the legalization of marijuana," although the organization does support carefully controlled clinical studies for alternative delivery methods, specifically a tetrahydrocannabinol (THC) skin patch.<sup>8</sup>
- The American Glaucoma Society (AGS) has stated that "although marijuana can lower the intraocular pressure, the side effects and short duration of action, coupled with the lack of evidence that its use alters the course of glaucoma, preclude recommending this drug in any form for the treatment of glaucoma at the present time."

- The American Academy of Pediatrics (AAP) believes that "[a]ny change in the legal status of marijuana, even if limited to adults, could affect the prevalence of use among adolescents." While it supports scientific research on the possible medical use of cannabinoids as opposed to smoked marijuana, it opposes the legalization of marijuana. 10
- The National Multiple Sclerosis Society (NMSS) has stated that it could not recommend medical marijuana be made widely available for people with multiple sclerosis for symptom management, explaining: "This decision was not only based on existing legal barriers to its use but, even more importantly, because studies to date do not demonstrate a clear benefit compared to existing symptomatic therapies and because side effects, systemic effects, and long-term effects are not yet clear." 11
- The **British Medical Association (BMA)** voiced extreme concern that downgrading the criminal status of marijuana would "mislead" the public into believing that the drug is safe. The BMA maintains that marijuana "has been linked to greater risk of heart disease, lung cancer, bronchitis and emphysema." The 2004 Deputy Chairman of the BMA's Board of Science said that "[t]he public must be made aware of the harmful effects we know result from smoking this drug." <sup>13</sup>

In 1999, **The Institute of Medicine (IOM)** released a landmark study reviewing the supposed medical properties of marijuana. The study is frequently cited by "medical" marijuana advocates, but in fact severely undermines their arguments.

- After release of the IOM study, the principal investigators cautioned that the active compounds in marijuana may have medicinal potential and therefore should be researched further. However, the study concluded that "there is little future in smoked marijuana as a medically approved medication." <sup>14</sup>
- For some ailments, the IOM found "...potential therapeutic value of cannabinoid drugs, primarily THC, for pain relief, control of nausea and vomiting, and appetite stimulation." However, it pointed out that "[t]he effects of cannabinoids on the symptoms studied are generally modest, and in most cases there are more effective medications [than smoked marijuana]." <sup>16</sup>
- The study concluded that, at best, there is only anecdotal information on the medical benefits of smoked marijuana for some ailments, such as muscle spasticity. For other ailments, such as epilepsy and glaucoma, the study found no evidence of medical value and did not endorse further research <sup>17</sup>
- The IOM study explained that "smoked marijuana . . . is a crude THC delivery system that also delivers harmful substances." In addition, "plants contain a variable mixture of biologically active compounds and cannot be expected to provide a precisely defined drug effect." Therefore, the study concluded that "there is little future in smoked marijuana as a medically approved medication." 18

• The principal investigators explicitly stated that using smoked marijuana in clinical trials "should not be designed to develop it as a licensed drug, but should be a stepping stone to the development of new, safe delivery systems of cannabinoids."

Thus, even scientists and researchers who believe that certain active ingredients in marijuana may have potential medicinal value openly *discount the notion that smoked marijuana is or can become "medicine."* 

The Drug Enforcement Administration supports ongoing research into potential medicinal uses of marijuana's active ingredients. As of May 2010:

- There are 119 researchers registered with DEA to perform studies with marijuana, marijuana extracts, and non-tetrahydrocannabinol marijuana derivatives that exist in the plant, such as cannabidiol and cannabinol.
- Studies include evaluation of abuse potential, physical/psychological effects, adverse effects, therapeutic potential, and detection.
- Eighteen of the researchers are approved to conduct research with smoked marijuana on human subjects. <sup>20</sup>

At present, however, *the clear weight of the evidence is that smoked marijuana is harmful*. No matter what medical condition has been studied, other drugs already approved by the FDA have been proven to be safer than smoked marijuana.

The only drug currently approved by the FDA that contains the synthetic form of THC is Marinol®. Available through prescription, Marinol® comes in pill form, and is used to relieve nausea and vomiting associated with chemotherapy for cancer patients and to assist with loss of appetite with AIDS patients.

Sativex®, an oromucosal spray for the treatment of spasticity due to Multiple Sclerosis is already approved for use in Canada and was approved in June 2010 for use in the United Kingdom. The oral liquid spray contains two of the cannabinoids found in marijuana – THC and cannabidiol (CBD) - but unlike smoked marijuana, removes contaminants, reduces the intoxicating effects, is grown in a structured and scientific environment, administers a set dosage and meets criteria for pharmaceutical products. <sup>21</sup>

Organizers behind the "medical" marijuana movement have not dealt with ensuring that the product meets the standards of modern medicine: quality, safety and efficacy. There is no standardized composition or dosage; no appropriate prescribing information; no quality control; no accountability for the product; no safety regulation; no way to measure its effectiveness (besides anecdotal stories); and no insurance coverage. Science, not popular vote, should determine what medicine is.

The legalization movement is not simply a harmless academic exercise. The mortal danger of thinking that marijuana is "medicine" was graphically illustrated by a story from California. In the spring of 2004, Irma Perez was "in the throes of her first experience with the drug Ecstasy... when, after taking one Ecstasy tablet, she became ill and told friends that she felt like she was... 'going to die'... Two teenage acquaintances did not seek medical care and instead tried to get Perez to smoke marijuana. When that failed due to her seizures, the friends tried to force-feed marijuana leaves to her, "apparently because [they] knew that drug is sometimes used to treat cancer patients." Irma Perez lost consciousness and died a few days later when she was taken off life support. She was 14 years old. 22

### THE LEGALIZATION LOBBY

The proposition that smoked marijuana is "medicine" is, in sum, false–trickery used by those promoting wholesale legalization.

- The Marijuana Policy Project (MPP) provides funding and assistance to states and localities to promote "marijuana as medicine" initiatives and legislation. Yet their vision statement clearly indicates that they have a much broader goal of decriminalizing marijuana. At the same time the marijuana legalization proponents are soliciting support for laws allowing marijuana to be used as medicine, they are working to *modify policies to regulate marijuana similarly to alcohol.*<sup>23</sup>
- Ed Rosenthal, senior editor of *High Times*, a pro-drug magazine, once revealed the legalization strategy behind the "medical" marijuana movement. While addressing an effort to seek public sympathy for glaucoma patients, he said, "I have to tell you that I also use marijuana medically. I have a latent glaucoma which has never been diagnosed. The reason why it's never been diagnosed is because I've been treating it." He continued, "I have to be honest, there is another reason why I do use marijuana . . . and that is because I like to get high. Marijuana is fun."<sup>24</sup>
- A few billionaires—not broad grassroots support—started and sustain the "medical" marijuana and drug legalization movements in the United States. Without their money and influence, the drug legalization movement would shrivel. According to National Families in Action, four individuals—George Soros, Peter Lewis, George Zimmer, and John Sperling—contributed \$1,510,000 to the effort to pass a "medical" marijuana law in California in 1996, a sum representing nearly 60 percent of the total contributions.<sup>25</sup>
- In 2000, *The New York Times* interviewed Ethan Nadelmann, Director of the Lindesmith Center. Responding to criticism that the medical marijuana issue is a stalking horse for drug legalization, Mr. Nadelmann stated: "Will it help lead toward marijuana legalization? . . . I hope so." <sup>26</sup>
- When a statute dramatically reducing penalties for "medical" marijuana took effect in Maryland in October 2003, a defense attorney noted that "[t]here are a whole bunch of people who like marijuana who can now try to use this defense." The attorney observed that lawyers

would be "neglecting their clients if they did not try to find out what 'physical, emotional or psychological" condition could be enlisted to develop a defense to justify a defendant's using the drug. "Sometimes people are self-medicating without even realizing it," he said.<sup>27</sup>

- In 2004, Alaska voters faced a ballot initiative that would have made it legal for adults age 21 and older to possess, grow, buy, or give away marijuana. The measure also called for state regulation and taxation of the drug. The campaign was funded almost entirely by the Washington, D.C.-based MPP, which provided "almost all" the \$857,000 taken in by the promarijuana campaign. Fortunately, Alaskan voters rejected the initiative.<sup>28</sup>
- In October 2005, Denver voters passed Initiative 100 decriminalizing marijuana based on incomplete and misleading campaign advertisements put forth by the Safer Alternative for Enjoyable Recreation (SAFER). A Denver City Councilman complained that the group used the slogan "Make Denver SAFER" on billboards and campaign signs to mislead the voters into thinking that the initiative supported increased police staffing. Indeed, the Denver voters were never informed of the initiative's true intent to decriminalize marijuana.<sup>29</sup>
- In 2006, the legalization movement funded three state marijuana-related initiatives, which were defeated in the November election. In Colorado, SAFER was behind Amendment 44, which allowed for possession of up to one ounce of marijuana. The amendment was defeated by 60 percent of the vote. In Nevada, Question 7, which was supported by the MPP, sought to permit the manufacture, distribution, and sale of marijuana to adults aged 21 or older. The measure was defeated by 56 percent of the vote. In South Dakota, South Dakotans for Medical Marijuana pushed Measure 4, allowing medical marijuana access. The measure was defeated by 52 percent of the vote.
- The legalization movement was more successful at the local level in 2006. MPP-funded local groups were able to pass measures in three California cities: Santa Barbara (Sensible Santa Barbara), Santa Cruz (Santa Cruz Citizens for Sensible Marijuana Policy), and Santa Monica (Santa Monicans for Sensible Marijuana Policy); and in Missoula, Montana (Citizens for Responsible Crime Policy). Residents voted to make marijuana possession the lowest law enforcement priority in their cities.<sup>31</sup>
- Three other legalization groups also won local initiatives: the NORML (the National Organization for the Reform of Marijuana Laws) chapter at the University of Arkansas at Fayetteville helped make possession of one ounce or less of marijuana a misdemeanor in Eureka Springs, Arkansas; Americans for Safe Access assisted Albany, CA with passing Measure D, allowing a medical marijuana dispensary in the City of Albany; and the Drug Policy Forum of Massachusetts helped four districts pass non-binding policy statements from voters allowing for possession of up to one ounce of marijuana be a civil violation subject only to a \$100 fine (2 districts) and allowing seriously ill patients to possess and grow marijuana with a doctor's recommendation.<sup>32</sup>
- In 2007 in Hailey, Idaho, the ballot initiatives to legalize industrial hemp, legalize medical use of marijuana and to allow marijuana laws to receive the lowest enforcement priority passed, but have not been implemented. The initiative to regulate and tax marijuana sales and use

failed. Mayor Rick Davis, City Councilman Don Keirn, and Chief of Police Jeff Gunter filed a Declaratory Judgment action alleging that the three initiatives were illegal. "The lawsuit primarily alleges that the three initiatives are illegal because they are contrary to the general laws of the State of Idaho and the United States." Ryan Davidson, director of The Liberty Lobby of Idaho, put the initiatives back on the May ballot, and again they passed. "Davidson's efforts in Hailey are part of a larger grassroots agenda to have marijuana laws reformed statewide and nationally." In March, 2009 Blaine County 5<sup>th</sup> District Court Judge Robert Elgee filed a decision to void the initiatives that would have legalized marijuana use in the city and would have made enforcement of marijuana laws the lowest priority for Hailey police. The judge also voided language in the initiative that would have required individual city officials to advocate for marijuana reform. <sup>35</sup>

- In 2008, with support from the Michigan Coalition for Compassionate Care, Michigan became the 13<sup>th</sup> state to approve marijuana for medicinal purposes.<sup>36</sup>
- Massachusetts, backed by the Committee for Sensible Marijuana Policy, replaced criminal penalties for one ounce of marijuana with a civil fine in 2008.<sup>37</sup>
- Voters in four districts (15 towns) in Massachusetts, supported by local legalization groups, passed a ballot measure to instruct a representative from each district to vote in favor of legislation that would allow seriously ill patients, with a doctor's written recommendation, to possess and grow small amounts of marijuana for their personal medical use. 38
- In the same year, voters in Fayetteville, Arkansas, supported by Sensible Fayetteville, voted to make adult marijuana possession law the lowest priority for local law enforcement.<sup>39</sup>
- In California, Proposition 5, also known as the Non-Violent Offender Rehabilitation Act, and supported by the Drug Policy Alliance, called for more funding for addiction treatment and decriminalization of up to an ounce of marijuana. This initiative did not pass. 40
- The legalizers were also less successful in New Hampshire, where although the state legislature approved a bill to legalize "medical" marijuana, Governor John Lynch vetoed the bill in July 2009, citing concerns over cultivation, distribution and the potential for abuse. 41
- Rhode Island became the 3<sup>rd</sup> state to allow the sale of marijuana for medicinal purposes. In June 2009, the Rhode Island legislature overrode Governor Circieri's veto of bills that allow for the establishment of three compassionate care centers regulated by the state department of health.<sup>42</sup>
- New Mexico opened its first "medical" marijuana dispensary in June 2009, becoming the 4<sup>th</sup> state to allow "medical" marijuana dispensaries. <sup>43</sup>
- In November 2009, Maine became the 5<sup>th</sup> state to allow dispensaries. The voters also approved the expansion of the "medical" marijuana law, to include defining debilitating medical conditions and incorporating additional diseases that can be included under the law. This effort was funded by the Drug Policy Alliance.<sup>44</sup>

- On November 4, 2009, Breckenridge, Colorado citizens voted to decriminalize possession of up to 1 ounce of marijuana for adults over 21 years of age. The measure, however, is symbolic, because pot possession is still against state law. Sean McAllister, a Breckenridge lawyer who pushed for the decriminalization measure said that "the vote shows people want to skip medical marijuana and legalize pot for everyone."
- In January 2010, New Jersey became the 14<sup>th</sup> state to allow the use of marijuana for medicinal purposes. With the most restrictive law in the country, only residents with one of twelve chronic illnesses (not including chronic pain) will be able to get a prescription from their doctor to buy up to two ounces a month from one of six dispensaries. Implementation of the program, originally scheduled for October 1, 2010, has been extended by the state legislature until January 1, 2011, to give the Governor more time to determine who will grow and dispense marijuana.
- On July 25, 2007, the U.S. House of Representatives defeated, by a vote of 165-262, an amendment (HR-3093) that would have prevented the DEA and the Department of Justice from arresting or prosecuting medical marijuana patients and providers in the 12 states where medical marijuana was then legal. 48
- Two Congressional initiatives on marijuana also failed in 2008. HR5842, Medical Marijuana Patient Protection Act and HR5843, Act to Remove Federal Penalties for the Personal Use of Marijuana by Responsible Adults, both died in committee.
- Three Congressional initiatives were introduced in Congress in 2009: HR2835 Medical Marijuana Patient Protection Act; HR2943 Personal Use of Marijuana by Responsible Adults Act of 2009; and HR3939 Truth in Trials Act.
- The Consolidated Appropriations Act of 2010 (HR 3288) became law in December 2009 without the "Barr Amendment," a provision that has been included in the Appropriations bill for the District of Columbia since 1999. <sup>49</sup> The Barr Amendment had prohibited "... any funds to be used to conduct a ballot initiative which seeks to legalize or reduce the penalties associated with the possession, use, or distribution of any schedule I substance under the Controlled Substance Act (or any tetrahydrocannabinois derivative." <sup>50</sup>
- The elimination of the Barr Amendment enabled the District of Columbia to implement Initiative 59, a ballot initiative that was approved in 1998 to allow for the use of marijuana for medical treatment. In May 2010, the District of Columbia City Council approved a bill that would allow chronically ill patients to receive a doctor's prescription to use marijuana and buy up to two ounces a month from a city-sanctioned distribution center. The bill was signed by the Mayor the same month and sent to Congress, which has 30 days to review it before it becomes a law. On June 23, 2010, Congressmen Jason Chaffetz and Jim Jordan introduced H.J. Res. 93, a resolution to disapprove the city law legalizing "medical" marijuana.

### THE FAILURE OF LEGALIZED MARIJUANA EFFORTS

The argument that "caregivers" who participate in legalized marijuana efforts are "compassionate" is contradicted by revelations that all too often cannabis clubs are fronts for drug dealers, not health facilities. Even the author of Proposition 215 believes the program is "a joke."

- Reverend Scott T. Imler, co-author of Proposition 215, the 1996 ballot initiative that legalized medical marijuana in California, expressed his disappointment with the way the program has been implemented in a series of interviews in late 2006.
  - "We created Prop. 215 so patients would not have to deal with black market profiteers. But today it is all about the money. Most of the dispensaries operating in California are a little more than dope dealers with store fronts." 51
  - "When we wrote 215, we were selling it to the public as something for seriously ill people....It's turned into a joke. I think a lot of people have medicalized their recreational use."<sup>52</sup>
  - "What we set out to do was put something in the statutes that said medicine was a defense in case they got arrested using marijuana for medical reasons," Imler says. "What we got was a whole different thing, a big new industry."<sup>53</sup>
- In an interview with National Public Radio in August 2009, Reverend Imler stated that he believes that the law has been subverted. "What we have is de-facto legalization." The article continues, "He never envisioned that medicinal pot would turn into a business, open to virtually anyone." <sup>54</sup>

In Oregon, where voters legalized "medical" marijuana for qualifying patients in November 1998, patients must grow their own marijuana or have a licensed grower provide it for them through an unpaid arrangement. While the initiative had good intentions, numerous problems exist.

- According to Lt. Michael Dingeman, Director of the Oregon State Police Drug Enforcement Section, many calls from cardholders are about never receiving the marijuana from their designated growers. The "growers are simply using the cardholders for cover, and selling their crops on the black market. In fact, some county sheriffs estimate that as much as one half of the illegal street marijuana they're seeing is being grown under the protection of the state's medical marijuana program."<sup>55</sup>
- Deputy Chief Tim George of the Medford Police Department says that the region is "swimming in weed," and the problem keeps getting worse. "People are traveling with large sums of money to buy marijuana. Weed is being shipped out of Oregon at record levels. Medical Marijuana has made it easier for criminals to grow it."<sup>56</sup>
- Sergeant Erik Fisher of the Drug Enforcement Section of the Oregon State Police says that the perception of the marijuana drug trade is mellower than other drug operations is wrong." He notes that almost all the distributors and growers carry firearms. "The other striking trend has

been the increase in home invasion robberies of medical marijuana folks, and how absolutely violent they can be. We have more home invasions going on with medical marijuana people than any other drug dealer I can think of."<sup>57</sup>

Neighborhood residents, doctors and other professionals associated with marijuana dispensaries admit there have been problems.

- In a letter to the Editor of the Denver Post, Dr. Christian Thurstone, Medical Director of an Adolescent Substance Abuse Treatment Program in Denver, has seen what impact Colorado's policies regarding "medical" marijuana has had on young adults.
  - "About 95 percent of the hundreds of young people referred to my clinic each year have problems with marijuana. I see teenagers who choose pot over family, school, friends and health every day. When they're high, these young people make poor choices that lead to unplanned pregnancies, sexually transmitted diseases, school dropouts and car accidents that harm people. When teenagers are withdrawing from marijuana, they can be aggressive and get into fights or instigate conflicts that lead to more trouble."
  - Dr. Thurstone talks about a 19-year-old who he was treating for severe addiction for several months. "He recently showed up at my clinic with a medical marijuana license. How did he get it? He paid \$300 for a brief visit with another doctor to discuss his "depression." The doctor took a cursory medical history that certainly didn't involve contacting me. The teenager walked out with the paperwork needed not only for a license to smoke it, but also for a license permitting a "caregiver" to grow up to six marijuana plants for him. My patient, who had quit using addictive substances after a near-death experience, is back to smoking marijuana daily, along with his caregiver."
  - In a three month period, Dr. Thurstone saw over a dozen patients between 18 and 25 with histories of substance abuse who had received a recommendation from other doctors to smoke marijuana.
  - "Kids without licenses tell me about potent pot they buy from caregivers whose plants yield enough supply to support sales on the side." 58
- In a professional pharmacology journal, a doctor of pharmacology wrote, "The ethical quandary that I have as a pharmacist is allowing lay people to open dispensaries for profit and supply marijuana to people without any quality control over what's dispensed or accountability to those being dispensed this potent drug." <sup>59</sup>
- The owners of a Satellite Beach house in Brevard County, Florida were told the renters would take care of the lawn and clean the pool themselves. What they didn't know is that they would be using the water from the swimming pool as part of the irrigation system for a hydroponic indoor marijuana grow in three of the four bedrooms of their home. "They even dug into the foundation of the house to put pipes and wires in," according to Kathleen Burgess, one of the owners, who estimated the property damage at \$60,000. The Brevard County Sheriff's Office found 24 marijuana plants inside with a possible yield of 200 pounds of cannabis. 60

- According to a Los Angeles press report, homeowners in Fair Oaks, California called the local cannabis club a "free for all." Conflicts among customers, sometimes 300 per day, had to be resolved by security guards. It was apparent that not all of the customers were legitimate patients. Even Dr. Charles Moser, a local physician who voted for Prop 215, said that he "... saw people coming up on bikes and skateboards, with backpacks, healthy-looking young men.<sup>61</sup>
- In addition to problems with the cannabis clubs themselves, California residents are also complaining about marijuana grows that supply the clubs. In Willits, California, residents and officials pointed out numerous problems, including the side-effects of resin from a cannabis growing operation that affected residents' health. Additionally, residents complained about the influx of homeless people looking for work at marijuana harvest time. "Since this medical marijuana thing our town has gone to hell," said Jolene Carrillo. "Every year we have all these creepy people. They sleep behind the Safeway and Rays and go to the bathroom there. They go to Our Daily Bread and eat the food poor people need." 62
- In the city of Arcata, California, LaVina Collenberg discovered that the nice young gentleman who rented her home on the outskirts of town was using it to grow marijuana after a neighbor called to tell her the house was on fire. In the charred remains she found grow lights, 3-foothigh marijuana plants, seeds germinating in the spa, air vents cut through the roof, and water from the growing operation soaking the carpeting and sub-flooring. Fire Protection District Chief John McFarland says "that most local structural fires involve marijuana cultivation." "Law enforcement officials estimate that 1,000 of the 7,500 homes in this Humboldt County community are being used to cultivate marijuana, slashing into the housing stock, spreading building-safety problems and sowing neighborhood discord." 63
- "Arcata Mayor Mark Wheetley said that marijuana growing has become a quality-of-life issue in this town of 17,000. People from all camps say enough is enough. It is like this renegade Wild West mentality." Humboldt State University President Rollin Richmond is concerned that "so many houses have been converted into pot farms that the availability of student rentals has been reduced and the community's aura of marijuana is turning off some prospective students. My own sense is that people are abusing Proposition 215 to allow them to use marijuana...as recreational drugs."

Many drug users are taking advantage of the guise of "compassionate care" to obtain and sell marijuana for non-medical use.

- In Great Falls, Montana, school counselors are seeing an increase in the use of marijuana by students. According to Earlene Ostberg, a school Chemical Awareness/Responsive Education Counselor, most of the students that are failing are smoking pot. "When I ask 'why,' a lot of kids are real defensive. They say "Mrs. Ostberg, it's medicinal. I could get a green (medical marijuana) card." 65
- "The owner of six Los Angeles-area medical marijuana dispensaries was arrested by federal agents ... after an investigation sparked by a traffic accident in which a motorist high on one of the dispensaries' products plowed into a parked SUV, killing the driver and paralyzing a

California Highway Patrol Officer." The driver had a large amount of marijuana and marijuana edibles in his pickup truck, purchased from the Holistic Caregivers facility in Compton. The owner, Virgil Grant, had an expired business license to operate an herbal retail store. In another of his dispensaries an employee was observed selling \$5,700 worth of marijuana out the back door. Mr. Grant, who had previous convictions on drugs and weapons related-offenses, has been "charged with drug conspiracy, money laundering, and operating a drug-involved premise within 1,000 feet of a school."

- A *Rolling Stone* article describes the "wink and nod" given to customers seeking marijuana for non-medical purposes by some dispensaries. "At the counter, a guy in a USC shirt is talking to the goateed clerk (Daniel's employees are paid approximately twenty dollars per hour, <u>plus a free gram per day</u>). With all the options, the customer -- er, patient -- doesn't know what to buy." "The muffins look nice," he says. "They're about a gram and a half of hash, which is pretty good," says the clerk. Then he points to the goo -- superpotent powdery hash mixed with honey. "This is what you want," he says. "This will definitely get you medicated." 67
- A Santa Cruz, California man, Edwin Hoey, was arrested in December, 2006. Deputies found 100 pounds of marijuana at his residence during an investigation. His attorney claimed that his client was providing pot for local medical marijuana dispensaries. However, law enforcement found among his possessions more than \$500,000 in cash and a French wine collection valued at \$150,000. Investigators found that Mr. Hoey was making a big profit from medical pot, some of which he sold to non-medicinal customers on the East Coast. 68
- Two East County (California) teenagers were suspended for showing up at school high, with a medical marijuana card as their excuse. <sup>69</sup>
- A news article reports the ease with which patients are able to obtain medical marijuana. Primary caregivers are authorized by law to grow, transport and provide marijuana to patients. Caregivers do not need any background in health care to hold this status, and they are not required to register with the state. All it takes is an oral or written agreement between the caregiver and a patient designating you as their primary caregiver.
- Rolling Stone magazine reported on abuses associated with Proposition 215. "... business is good for ...compassionate caregivers, freedom fighters, botanists in love with the art of growing, Long Beach homeys, Valley Boys, Oakland thugs, and even one savvy gal who wants her girlfriends to sell medical marijuana while wearing pasties. But as in any drug business, a criminal element persists—storage lockers of product, safes of cash, hustlers trying to rob those lockers and safes, guns to protect one from the hustlers, and the constant risk of arrest."<sup>71</sup>
- A news reporter for the Santa Cruz *Sentinel* interviewed a defense attorney who acknowledged that he turns away clients who admit they have taken advantage of the law to use marijuana for non-medical purposes. "These people aren't sick... and are simply trying to hide behind the Compassionate Use Act for recreational or profit-making reasons." This lawyer estimates that up to 30 percent of those seeking his assistance are involved with marijuana for non-medical uses. <sup>72</sup>

Because of abuses associated with the cannabis clubs, law enforcement and localities have cracked down on these fronts for marijuana dealers.

- In Montana, where voters approved "medical" marijuana in 2004, there has been a recent influx of registered "medical" marijuana cardholders. As of June 2009 there were only 2,923 cardholders; now there are approximately 15,000 cardholders. As a result of this increase, there has been a proliferation of storefront dispensaries, with an increase from 919 to over 5,000. The existing law does not have the proper regulations to manage these businesses and ensure public safety.<sup>73</sup>
  - In Billings, the City Council approved a six-month moratorium on new medical businesses in May 2010 after two evenings of violence against dispensaries. They also ordered the closure of 25 of the 81 dispensaries for not being properly registered with the state.<sup>74</sup>
  - In Kalispell, they recently banned any new "medical" marijuana stores in the city following the bludgeoning death of a patient that authorities believe was related to the theft of "medical" marijuana plants.<sup>75</sup>
  - In April 2010 the principal and counselors from Great Falls High School testified that teenagers are smoking more marijuana than ever before. Principal Dick Kloppel stated that "I firmly believe it is directly attributable to the increased availability of the drug through caregivers and cardholders."
  - Mikie Messman, Chemical Awareness/Responsive Education Coordinator for the school district testified that the students told her that marijuana relieves their stress. Instead of learning how to cope with stress, they are covering it up. "These kids are using it as medication so they don't have to deal with adolescence," Messman said. 77
  - In response to the information provided by school personnel and others who testified, in June 2010 Great Falls city commissioners voted to ban medical marijuana businesses from the city.<sup>78</sup>
  - A block from the state capitol in Helena, the Cannabis Caregivers Network, set up a cannabis caravan, a makeshift clinic, using a band of doctors and medical marijuana advocates roaming Montana to sign up thousands of patients to become "medical" marijuana cardholders. For \$150 patients see a doctor who provides a recommendation that they be allowed to buy and smoke "medical" marijuana. The Montana Medical Board has been working to curtail the practice of such mass screenings. They recently fined a doctor who participated in a similar clinic for seeing 150 patients in 14 and 1/2 hours, or approximately a patient every six minutes. There was no way a thorough examination, a medical history, discussion of alternative treatments and oversight of the patients could have occurred.
  - One caravan recently ran a clinic in a hotel in Helena, where they processed between 200 and 300 people seeking a doctor's recommendation. The group then assisted the patient with sending the application and doctor's recommendation to the state health department. Afterwards patients were ushered into another room where half a dozen marijuana providers competed for their business.

- According to an article in the Los Angeles Times, in 2007 there were 186 marijuana dispensaries registered with the city. Recognizing that hundreds of dispensaries were proliferating across the city, the City Council imposed a moratorium on new ones until regulations are put in place. However, operators were allowed to appeal for a hardship exemption. The City Council did not grant any exemptions, but dispensaries were allowed to open. The City Council has since eliminated the hardship exemption and is proposing an ordinance that would shut down dispensaries that opened during the moratorium.
- On September 10, 2009, 14 search warrants were served at 14 marijuana dispensaries and six associated residences in San Diego. According to San Diego County District Attorney Bonnie M. Dumanis, "these so-called 'marijuana dispensaries' are nothing more than for-profit storefront drug dealing operations run by drug dealers hiding behind the state's medical marijuana law." For profit marijuana dispensaries are not legal according to state law. "We have not, and will not prosecute people who are legitimately and legally using medical marijuana." Residents living near some of the storefronts complained to law enforcement and local government about the increase in crimes associated with the dispensaries and about their proximity to schools and areas frequented by children.
- On November 13, 2009 the Los Angeles City Attorney's Office submitted a new draft medical marijuana ordinance for council to review.
- On November 18, 2009, Los Angeles County District Attorney Steve Cooley warned the Los Angeles City Council that he intends to prosecute dispensaries that sell drugs even if the city's leaders decide to allow those transactions. DA Cooley said that "state laws do not allow medical marijuana to be sold." Both Cooley and City Attorney Carmen Trutanich agree that recent court decisions clearly state that collectives cannot sell marijuana over the counter, but can be reimbursed for the cost of growing the marijuana. Los Angeles County Superior Court Judge James C. Chalfant agreed that state law does not allow medical marijuana to be sold. "I don't believe that a storefront dispensary that sells marijuana is lawful."
- In February 2010, District Attorney Steve Cooley charged Jeff Joseph, operator of a Culver City dispensary with 24 felonies, including selling and transporting marijuana, and money laundering. In addition, the Los Angeles City Attorney's office has joined in a civil lawsuit against Joseph and two other dispensaries, charging that they are public nuisances and are operating illegally.
- In January 2010 the Los Angeles City Council adopted a comprehensive medical marijuana ordinance that enforces strict controls on dispensaries, forcing hundreds of shops to close. Although the ordinance sets the limit to 70, the number would be closer to 150 by allowing those registered with the city in 2007 to remain. New requirements include banning consumption at the dispensary and not locating within 1,000 feet of schools, parks, libraries and other dispensaries. 87
- In May 2010 the Los Angeles city prosecutors began notifying 439 dispensaries that they had
  to shut down by June 7, 2010. Property owners and dispensary operators were sent letters
  informing them that violations could lead to six months in jail and a \$1,000 fine. Additional
  civil penalties could be added.
- "In Mendocino County, where plants grow more than 15 feet high, medical marijuana clubs adopt stretches of highway, and the sticky, sweet aroma of cannabis fills this city's streets during the autumn harvest,...residents are wondering if the state's embrace of marijuana for

medicinal purpose has gone too far....Some residents and law enforcement officials say the California law has increasingly and unintentionally provided legal cover for large-scale marijuana growers – and the problems such big-money operations can attract." On June 3, 2008, the County passed Measure B, which reduced the number of plants allowed to be grown. Numerous initiatives like these throughout the state demonstrate that residents want to see more, not less, regulation of the medical marijuana program. <sup>89</sup>

- In March, 2006, DEA worked with state and local law enforcement to dismantle the largest marijuana-laced candy manufacturing organization in the western United States. The five-month investigation resulted in the arrest of the organization's leader and the seizure of more than 4,000 marijuana plants, \$100,000 in U.S. currency, three firearms, and hundreds of marijuana-laced food products. The marijuana-laced products, packaged to mimic legitimate food products, included labels such as "Buddafingers," "Munchy Way," and "Pot Tarts." The items were packaged in large boxes for distribution to cannabis clubs throughout the West Coast and over the Internet.
- Many cities and counties in California have refused to allow cannabis clubs to operate, despite the passage of Proposition 215. One hundred and thirty-two cities and nine counties have banned cannabis clubs outright; 14 counties and 101 cities have moratoria against them; 36 cities and nine counties have ordinances regulating them. <sup>90</sup>
- In San Francisco, things got so out of control that Mayor Gavin Newsom had to close many of the "clinics" because drug addicts were clustering around them, causing fear among city residents.<sup>91</sup>

### DANGERS OF MARIJUANA

### MARIJUANA IS DANGEROUS TO THE USER AND OTHERS

Legalization of marijuana, no matter how it begins, will come at the expense of our children and public safety. It will create dependency and treatment issues, and open the door to use of other drugs, impaired health, delinquent behavior, and drugged drivers.

This is not the marijuana of the 1970s; today's marijuana is far more powerful On May 14, 2009, the latest analysis from the National Institute on Drug Abuse (NIDA)-funded University of Mississippi's Potency Monitoring Project revealed that marijuana potency levels in the U.S. are the highest ever reported since the scientific analysis of the drug began.

- According to the latest data, the average amount of THC in seized samples has reached 10.1 percent. This compares to an average of just under four percent reported in 1983 and represents more than a doubling of the potency of the drug since that time. 92
- NIDA Director Dr. Nora Volkow stated that, "Although the overall number of young people using marijuana has declined in recent years, there is still reason for great concern, particularly since roughly 60 percent of first-time marijuana users are under 18 years old. During adolescence and into young adulthood, the brain continues to develop and may be vulnerable to marijuana's deleterious effects. Science has shown that marijuana can produce adverse

physical, mental, emotional, and behavioral changes, and contrary to popular belief--it can be addictive." <sup>93</sup>

Skunk, the more potent form of marijuana being used in the United Kingdom today, contains 15 to 20 percent THC, and new resin preparations have up to 30 percent.<sup>94</sup>

Increasingly, the international community is joining the United States in recognizing the fallacy of arguments claiming marijuana use is a harmless activity with no consequences to others.

- Antonio Maria Costa, Executive Director of the United Nations Office on Drugs and Crime, noted in an article published in *The Independent on Sunday* "The debate over the drug is no longer about liberty; it's about health." He continued, "Evidence of the damage to mental health caused by cannabis use–from loss of concentration to paranoia, aggressiveness and outright psychosis—is mounting and cannot be ignored. Emergency-room admissions involving cannabis is rising, as is demand for rehabilitation treatment. ...It is time to explode the myth of cannabis as a 'soft' drug." <sup>95</sup>
- As ONDCP Director R. Gil Kerlikowske noted, "The concern with marijuana is not born out of any culture war mentality, but out of what science tells us about the drug's effects." <sup>96</sup>

### MENTAL HEALTH ISSUES RELATED TO MARIJUANA

There is mounting evidence that use of marijuana, particularly by adolescents, can lead to serious mental health problems.

- "Nearly one in ten first-year college students at a mid-Atlantic university have a cannabis use disorder (CUD) according to a NIDA-funded study of drug use conducted by investigators from the Center for Substance Abuse Research at the University of Maryland." "Students who had used cannabis five or more times in the past year regardless of whether or not they met the criteria for CUD reported problems related to their cannabis use, such as concentration problems (40.1 percent), regularly putting themselves in physical danger (24.3 percent), and driving after using marijuana (18.6 percent)." "97
- According to a recent report by the Office of National Drug Control Policy on teens, depression and marijuana use: 98
  - Depressed teens are twice as likely as non-depressed teens to use marijuana and other illicit drugs.
  - Depressed teens are more than twice as likely as their peers to abuse or become dependent on marijuana.
  - Marijuana use can worsen depression and lead to more serious mental illness such as schizophrenia, anxiety, and even suicide.

- Teens who smoke marijuana at least once a month are three times more likely to have suicidal thoughts than non-users.
- The percentage of depressed teens is equal to the percentage of depressed adults, but depressed teens are more likely than depressed adults to use marijuana than other drugs.
- Researchers from the University of Oulu in Finland interviewed over 6,000 youth ages 15 and 16 and found that "teenage cannabis users are more likely to suffer psychotic symptoms and have a greater risk of developing schizophrenia in later life." 99
- Australian researchers report that long-term, heavy cannabis use may be associated with structural abnormalities in areas of the brain which govern memory, emotion, and aggression. Brain scans showed that the hippocampus was 12 percent smaller and the amygdale 7 percent smaller in men who smoked at least 5 cigarettes daily for almost 10 years. Dr. Mura Yucel, the lead researcher stated that "this new evidence plays an important role in further understanding the effects of marijuana and its impact on brain functions. The study is the first to show that long-term cannabis use can adversely affect all users, not just those in the high-risk categories such as the young, or those susceptible to mental illness, as previously thought." <sup>100</sup>
- A two-year study by the National Cannabis Prevention and Information Centre, at the University of New South Wales in Sydney, Australia found that cannabis users can be as aggressive as crystal methamphetamine users, with almost one in four men and one in three women being violent toward hospital staff or injuring themselves after acting aggressively. Almost 12 percent were considered a suicide risk. The head of the Emergency Department at St. Vincent's Hospital, Gordian Fulde, said "that most people still believed marijuana was a soft drug, but the old image of feeling sleepy and having the munchies after you've smoked is entirely inappropriate for modern-day marijuana. With hydroponic cannabis, the levels of THC can be tenfold what they are in normal cannabis so we are seeing some very, very serious fallout." <sup>101</sup>
- A study published in the March 2008 Journal of the American Academy of Child and Adolescent Psychiatry cited the harm of smoking marijuana during pregnancy. The study found a significant relationship between marijuana exposure and child intelligence. Researchers concluded that "prenatal marijuana exposure has a significant effect on school-age intellectual development."
- Doctors at Yale University documented marijuana's damaging effect on the brain after nearly half of 150 healthy volunteers experienced psychotic symptoms, including hallucinations and paranoid delusions, when given THC, the drug's primary active ingredient. The findings were released during a May 2007 international health conference in London. 103
- U.S. scientists have discovered that the active ingredient in marijuana interferes with synchronized activity between neurons in the hippocampus of rats. The authors of this November 2006 study suggest that action of tetrahydrocannabinol, or THC, might explain why marijuana impairs memory.<sup>104</sup>

- A pair of articles in the *Canadian Journal of Psychiatry* reflects that cannabis use can trigger schizophrenia in people already vulnerable to the mental illness and assert that this fact should shape marijuana policy. <sup>105</sup>
- Memory, speed of thinking, and other cognitive abilities get worse over time with marijuana use, according to a new study published in the March 14, 2006 issue of *Neurology*, the scientific journal of the American Academy of Neurology. The study found that frequent marijuana users performed worse than non-users on tests of cognitive abilities, including divided attention and verbal fluency. Those who had used marijuana for 10 years or more had more problems with their thinking abilities than those who had used marijuana for 5-to-10 years. All of the marijuana users were heavy users, which was defined as smoking four or more joints per week. 106
- John Walters, then the Director of the Office of National Drug Control Policy, Charles G. Curie, then the Administrator of the Substance Abuse and Mental Health Services Administration, and experts and scientists from leading mental health organizations joined together in May 2005 to warn parents about the mental health dangers marijuana poses to teens. According to several recent studies, marijuana use has been linked with depression and suicidal thoughts, in addition to schizophrenia. These studies report that weekly marijuana use among teens doubles the risk of developing depression and triples the incidence of suicidal thoughts. <sup>107</sup>
- Dr. Andrew Campbell, a member of the New South Wales (Australia) Mental Health Review Tribunal, published a study in 2005 which revealed that four out of five individuals with schizophrenia were regular cannabis users when they were teenagers. Between 75-80 per cent of the patients involved in the study used cannabis habitually between the ages of 12 and 21. In addition, a laboratory-controlled study by Yale scientists, published in 2004, found that THC "transiently induced a range of schizophrenia-like effects in healthy people." In addition, a laboratory-controlled study by Yale scientists, published in 2004, found that THC "transiently induced a range of schizophrenia-like effects in healthy people."
- Carleton University researchers published a study in 2005 showing that current marijuana users
  who smoke at least five "joints" per week did significantly worse than non-users when tested
  on neurocognition tests such as processing speed, memory, and overall IQ.
- Robin Murray, a professor of psychiatry at London's Institute of Psychiatry and consultant at the Maudsley Hospital in London, wrote an editorial which appeared in *The Independence on Sunday*, on March 18, 2007, in which he states that the British Government's "mistake was rather to give the impression that cannabis was harmless and that there was no link to psychosis." Based on the fact that "...in the late 1980s and 1990s psychiatrists like me began to see growing numbers of young people with schizophrenia who were taking large amounts of cannabis" Murray claims that "...at least 10 percent of all people with schizophrenia in the UK would not have developed the illness if they had not smoked cannabis." By his estimates, 25,000 individuals have ruined their lives because they smoked cannabis. He also points out that the "skunk" variety of cannabis, which is very popular among young people in Great Britain, contains "15 to 20 per cent THC, and new resin preparations have up to 30 percent." 111

- Dr. John MacLeod, a prominent British psychiatrist states: "If you assume such a link (to schizophrenia with cannabis) then the number of cases of schizophrenia will increase significantly in line with increased use of the drug." He predicts that cannabis use may account for a quarter of all new cases of schizophrenia in three years' time. 112
- A study by Scientists at the Queensland Brain Institute in Australia on long-term marijuana use and the increased risk of psychosis confirms earlier findings. "Compared with those who had never used cannabis, young adults who had six or more years since first use of cannabis were twice as likely to develop a non-affective psychosis (such as schizophrenia), "McGrath wrote in a study published in the Archives of General Psychiatry Journal. "They were also four times as likely to have high scores in clinical tests of delusion." 113
- According to Margaret Trudeau, "Marijuana can trigger psychosis." "Quitting cannabis has been an important part of my recovery from mental illness," Margaret Trudeau, ex-wife of former Canadian prime Minister Pierre Trudeau, reported at a press conference at the Canadian Mental Health Conference in Vancouver on February 15, 2007. "Every time I was hospitalized it was preceded by heavy marijuana use." 114
- A study by doctors from the National Institute of Drug Abuse found that people who smoked marijuana had changes in the blood flow in their brains even after a month of not smoking. The marijuana users had PI (pulsatility index) values somewhat higher than people with chronic high blood pressure and diabetes, which suggests that marijuana use leads to abnormalities in the small blood vessels in the brain. These findings could explain in part the problems with thinking and remembering found in other studies of marijuana users.
- In a presentation on "Neuroimaging Marijuana Use and Effects on Cognitive Function" Professor Krista Lisdahl Medina suggests that chronic heavy marijuana use during adolescence is associated with poorer performance on thinking tasks, including slower psychomotor speed and poorer complex attention, verbal memory and planning ability. "While recent findings suggest partial recovery of verbal memory functioning within the first three weeks of adolescent abstinence from marijuana, complex attention skills continue to be affected. Not only are their thinking abilities worse, their brain activation to cognitive task is abnormal." 116

### PHYSICAL HEALTH ISSUES RELATED TO MARIJUANA

Marijuana use also affects the physical health of users.

- Under the Safe Drinking Water and Toxic Enforcement Act of 1986, the Governor of
  California is required to revise and republish at least once a year the list of chemicals known to
  the state to cause cancer or reproductive toxicity. On September 11, 2009, the California
  Environmental Protection Agency, Office of Environmental Health Hazard Assessment,
  published the latest list. The list includes a new chemical added in June, marijuana smoke, and
  lists cancer as the type of toxicity. 117
- A study by researchers at the Erasmus University Medical Center in Rotterdam, Netherlands found woman who smoked pot during pregnancy may impair their baby's growth and

development in the womb. The babies born to marijuana users tended to weigh less and have smaller heads than other infants, both of which are linked to increased risk of problems with thinking, memory, and behavioral problems in childhood.<sup>118</sup>

- A long-term study of over 900 New Zealanders by the University of Otago, New Zealand School of Dentistry has found that "heavy marijuana use has been found to contribute to gum disease, apart from the known effects that tobacco smoke was already known to have." <sup>119</sup>
- A study from Monash University and the Alfred Hospital in Australia has found that "bullous lung disease occurs in marijuana smokers 20 years earlier than tobacco smokers. Often caused by exposure to toxic chemicals or long-term exposure to tobacco smoke, bullae is a condition where air trapped in the lungs causes obstruction to breathing and eventual destruction of the lungs." Dr. Matthew Naughton explains that "marijuana is inhaled as extremely hot fumes to the peak inspiration and held for as long as possible before slow exhalation. This predisposes to greater damage to the lungs and makes marijuana smokers more prone to bullous disease as compared to cigarette smokers." 120
- In December 2007 researchers in Canada reported that "marijuana smoke contains significantly higher levels of toxic compounds -- including ammonia and hydrogen cyanide -- than tobacco smoke and may therefore pose similar health risks." "Ammonia levels were 20 times higher in the marijuana smoke than in the tobacco smoke, while hydrogen cyanide, nitric oxide and certain aromatic amines occurred at levels 3-5 times higher in the marijuana smoke." 121
- Marijuana worsens breathing problems in current smokers with chronic obstructive pulmonary disease (COPD), according to a study released by the American Thoracic Society in May 2007. Among people age 40 and older, smoking cigarettes and marijuana together boosted the odds of developing COPD to 3.5 times the risk of someone who smoked neither. 122
- Scientists at Sweden's Karolinska Institute, a medical university, have advanced their understanding of how smoking marijuana during pregnancy may damage the fetal brain.
   Findings from their study, released in May 2007, explain how endogenous cannabinoids exert adverse effects on nerve cells, potentially imposing life-long cognitive and motor deficits in afflicted new born babies 123
- A study from New Zealand reports that cannabis smoking may cause five percent of lung cancer cases in that country. Dr. Sarah Aldington of the Medical Research Institute in Wellington presented her study results at the Thoracic Society conference in Auckland on March 26, 2007.<sup>124</sup>
- Researchers at the Fred Hutchinson Cancer Research Center in Seattle found that frequent or
  long-term marijuana use may significantly increase a man's risk of developing the most
  aggressive type of testicular cancer, nonseminoma. Nonseminoma is a fast-growing testicular
  malignancy that tends to strike early, between the ages of 20 and 35, and accounts for about 40
  percent of all testicular-cancer cases. Dr. Stephen Schwartz stated that researchers are still
  studying the long-term health consequences of marijuana smoking, especially heavy marijuana

- smoking and "in the absence of more certain information, a decision to smoke marijuana recreationally means that one is taking a chance on one's future health."<sup>125</sup>
- According to the 2007 Drug Abuse Warning Network (DAWN), there were 974,272 emergency department (ED) visits involving an illicit drug. Marijuana was involved in 308,547 of these visits, second only to cocaine, which had almost twice as many. The highest rates of ED visits were patients 18 to 24 years of age. 126
- When considered in relation to the entire population of the United States, ED visits for marijuana equal 101.3 visits per 100,000 people. 127
- On an average day in 2008 there were 723 drug related ED visits for youth 12 to 17 years of age. Of those visits, 129 involved marijuana. 128
- According to researchers at the Yale School of Medicine, long-term exposure to marijuana smoke is linked to many of the same kinds of health problems as those experienced by long-term cigarette smokers. "...[C]linicians should advise their patients of the potential negative impact of marijuana smoking on overall lung health." 129
- While smoking cigarettes is known to be a major risk factor for the bladder cancer most common among people age 60 and older, researchers are now finding a correlation between smoking marijuana and bladder cancer. In a study of younger patients with transitional cell bladder cancer, Dr. Martha Terriss found that 88.5 percent had a history of smoking marijuana. Marijuana smoke has many of the same carcinogen-containing tars as cigarettes and may get even more into the body because marijuana cigarettes are unfiltered and users tend to hold the smoke in their lungs for prolonged periods. Dr. Terriss notes that more research is needed, but does recommend that when doctors find blood in a young patient's urine sample, they may want to include questions about marijuana use in their follow-up<sup>130</sup>
- Smoking marijuana can cause changes in lung tissue that may promote cancer growth, according to a review of decades of research on marijuana smoking and lung cancer. However, it is not possible to directly link pot use to lung cancer based on existing evidence. Nevertheless, researchers indicate that the precancerous changes seen in studies included in their analysis, as well as the fact that marijuana smokers generally inhale more deeply and hold smoke in their lungs longer than cigarette smokers, and that marijuana is smoked without a filter, do suggest that smoking pot could indeed boost lung cancer risk. It is known, they add, that marijuana smoking deposits more tar in the lungs than cigarette smoking does. <sup>131</sup>
- Smoking three cannabis joints will cause you to inhale the same amount of toxic chemicals as a
  whole pack of cigarettes according to researchers from the French National Consumers'
  Institute. Cannabis smoke contains seven times more tar and carbon monoxide than cigarette
  smoke. Someone smoking a joint of cannabis resin rolled with tobacco will inhale twice the
  amount of benzene and three times as much toluene as if they were smoking a regular
  cigarette. <sup>132</sup>

- According to research, the use of marijuana by women trying to conceive or those recently becoming pregnant is not recommended, as it endangers the passage of the embryo from the ovary to the uterus and can result in a failed pregnancy. The researchers from Vanderbilt University say a study with mice has shown that marijuana exposure may compromise the pregnancy outcome because an active ingredient in marijuana, tetrahydrocannabinol (THC), interferes with a fertilized egg's ability to implant in the lining of the uterus. <sup>133</sup>
- Infants exposed to marijuana in the womb show subtle behavioral changes in their first days of life, according to researchers in Brazil. The newborns were more irritable than non-exposed infants, less responsive, and more difficult to calm. They also cried more, startled more easily, and were jitterier. Such changes have the potential to interfere with the mother-child bonding process. "It is necessary to counter the misconception that marijuana is a 'benign drug' and to educate women regarding the risks and possible consequences related to its use during pregnancy," Dr. Marina Carvahlo de Moraes Barros and her colleagues concluded. 134
- Marijuana smoking has been implicated as a causative factor in tumors of the head and neck and of the lung. The marijuana smokers in whom these tumors occur are usually much younger than the tobacco smokers who are the usual victims of these malignancies. Although a recent study published by the Medical College of Georgia and Stanford University suggests a causal relationship between marijuana exposure and bladder cancer, larger scale epidemiologic and basic science studies are needed to confirm the role of marijuana smoking as an etiologic agent in the development of transitional cell carcinoma.<sup>135</sup>
- According to a 2005 study of marijuana's long-term pulmonary effects by Dr. Donald Tashkin at the University of California, Los Angeles, marijuana smoking deposits significantly more tar and known carcinogens within the tar, such a polycyclic aromatic hydrocarbons, into the airways. In addition to precancerous changes, marijuana smoking is associated with impaired function of the immune system components in the lungs.
- Smoked marijuana has also been associated with an increased risk of the same respiratory symptoms as tobacco, including coughing, phlegm production, chronic bronchitis, shortness of breath and wheezing. Because cannabis plants are contaminated with a range of fungal spores, smoking marijuana may also increase the risk of respiratory exposure by infectious organisms (i.e., molds and fungi). 137
- Marijuana takes the risks of tobacco and raises them: marijuana smoke contains more than 400 chemicals and increases the risk of serious health consequences, including lung damage.<sup>138</sup>
- An April 2007 article published by the *Harm Reduction Journal*, and funded by the prolegalization Marijuana Policy Project, argues that the use of a vaporizer has the potential to reduce the danger of cannabis as far as respiratory symptoms are concerned. While these claims remain scientifically unproven, serious negative consequences still remain. For example, driving skills are still impaired, heavy adolescent use may create deviant brain structure, and 9-12 percent of cannabis users develop symptoms of dependence. A vaporizer offers no protection against these consequences. <sup>139</sup>

- According to two studies, marijuana use narrows arteries in the brain, "similar to patients with high blood pressure and dementia," and may explain why memory tests are difficult for marijuana users. In addition, "chronic consumers of cannabis lose molecules called CB1 receptors in the brain's arteries," leading to blood flow problems in the brain which can cause memory loss, attention deficits, and impaired learning ability.
- A small study (50 patients) was conducted by the University of California San Francisco from 2003 to 2005, leading researchers to find that smoked marijuana eased HIV-related foot pain. This pain, known as peripheral neuropathy, was relieved for 52 percent of the patients in the controlled experiment. Dr. Donald Abrams, director of the study said that while subjects' pain was reduced he and his colleagues "found that adverse events, such as sedation, dizziness and confusion were significantly higher among the cannabis smokers." 141
- In response to this study, critics of smoked marijuana were quick to point out that while THC does have some medicinal benefits, smoked marijuana is a poor delivery mechanism. Citing evidence that marijuana smoke is harmful, Dr. David Murray, chief scientist at the Office of National Drug Control Policy, noted that "People who smoke marijuana are subject to bacterial infections in the lungs...Is this really what a physician who is treating someone with a compromised immune system wants to prescribe?" 142
  - Dr. Murray also said that the findings are "not particularly persuasive" because of the small number of subjects and the possibility that subjects knew they were smoking marijuana and had an increased expectation of efficacy. He expressed the government's support for pain relief for HIV-affected individuals and said that while "We're very much supportive of any effort to ameliorate the suffering of AIDs patients, the delivery mechanism for THC should be pills, and not smoked marijuana, which can cause lung damage and deliver varying dosages of THC." 143
  - Researchers involved with the University of California San Francisco project admitted that there may be a problem with efforts to gauge the effects of marijuana vs. the effects of a placebo. Some users were immediately able to acknowledge that their sample was indeed cannabis because of the effects of that substance. One participant, Diana Dodson said, "I knew immediately [that I received cannabis] because I could feel the effects."
- Pro-marijuana advocates were encouraged by a medical study published in *Cancer Epidemiology, Biomarkers & Prevention*. The study, published in October 2006, was based on interviews with people in Los Angeles (611 who developed lung cancer, 601 who developed cancer of the head or neck regions, and 1,040 people without cancer who were matched [to other subjects] on age, gender, and neighborhoods). The study found that people who smoke marijuana do not appear to be at increased risk of developing lung cancer. While this study's findings differed from previous studies and researchers' expectations, "[o]ther experts are warning that the study should not be viewed as a green light to smoke pot, as smoking marijuana has been associated with problems such as cognitive impairment and chronic bronchitis." The National Institute on Drug Abuse (NIDA) continues to maintain that smoking marijuana is detrimental to pulmonary functions.

- In its October, 2006, issue of NIDA Notes, mention is made of the most recent Tashkin study. "Biopsies of bronchial tissue provide evidence that regular marijuana smoking injures airway epithelial cells, leading to dysregulation of bronchial epithelial cell growth and eventually to possible malignant changes." Moreover, he adds, because marijuana smokers typically hold their breath four times as long as tobacco smokers after inhaling, marijuana smoking deposits significantly more tar and known carcinogens within the tar, such as polycyclic aromatic hydrocarbons, in the airways. In addition to precancerous changes, Dr. Tashkin found that marijuana smoking is associated with a range of damaging pulmonary effects, including inhibition of the tumor-killing and bactericidal activity of alveolar macrophages, the primary immune cells within the lung."
- NIDA also comments on the Tashkin study in the *Director's Notes* from February 2007. While acknowledging that the study concluded "that the association of these cancers with marijuana, even long-term or heavy use, is not strong and may be below practically detectable limits...these results may have been affected by selection bias or error in measuring lifetime exposure and confounder histories." 147
- In October 2006, one of the study's authors, Dr. Hal Morgenstern, Chair of Epidemiology at the University of Michigan School of Public Health, said although the risk of cancer did not prove to be large in the recent study, "I wouldn't go so far as to say there is no increased cancer risk from smoking marijuana." 148

### MARIJUANA AS A PRECURSOR TO ABUSE OF OTHER DRUGS

- Teens who experiment with marijuana may be making themselves more vulnerable to heroin addiction later in life, if the findings from experiments with rats are any indication. "Cannabis has very long-term, enduring effects on the brain," according to Dr. Yamin Hurd of the Mount Sinai School of Medicine in New York, the study's lead author. 149
- Marijuana is a frequent precursor to the use of more dangerous drugs and signals a significantly enhanced likelihood of drug problems in adult life. The *Journal of the American Medical Association* reported, based on a study of 300 sets of twins, "that marijuana-using twins were four times more likely than their siblings to use cocaine and crack cocaine, and five times more likely to use hallucinogens such as LSD." 150
- Long-term studies on patterns of drug usage among young people show that very few of them use other drugs without first starting with marijuana. For example, one study found that among adults (age 26 and older) who had used cocaine, 62 percent had initiated marijuana use before age 15. By contrast, less than one percent of adults who never tried marijuana went on to use cocaine.
- Columbia University's National Center on Addiction and Substance Abuse (CASA) reports that teens who used marijuana at least once in the last month are 13 times likelier than other

teens to use another drug like cocaine, heroin, or methamphetamine and almost 26 times likelier than those teens who have never used marijuana to use another drug. 152

- In the March 2007 report on substance abuse at America's colleges and universities, CASA notes that between 1993 and 2005, the proportion of students who were daily marijuana users increased 110.5 percent, from 1.9 percent to 4.0 percent (approximately 310,000 students.) 153
- Marijuana use in early adolescence is particularly ominous. Adults who were early marijuana
  users were found to be five times more likely to become dependent on any drug, eight times
  more likely to use cocaine in the future, and fifteen times more likely to use heroin later in
  life.<sup>154</sup>
- In 2008, an estimated 15 percent of past year marijuana users aged 12 or older used marijuana on 300 or more days within the past 12 months. 155
- In 2008, 3.9 million Americans aged 12 or older used marijuana daily or almost daily in the past year. <sup>156</sup>
- In 2008, there were 2.2 million persons who had used marijuana for the first time within the past 12 months; this averages to approximately 6,000 initiates per day. 157
- On an average day in 2008, 3,695 adolescents 12 to 17 years of age used marijuana for the first time. On an average day in the past year, 563,182 used marijuana. 158
- Healthcare workers, legal counsel, police and judges indicate that marijuana is a typical precursor to methamphetamine. For instance, Nancy Kneeland, a substance abuse counselor in Idaho, pointed out that "in almost all cases meth users began with alcohol and pot." <sup>159</sup>

### DEPENDENCY AND TREATMENT

- Of the 20.1 million Americans aged 12 or older who used illicit drugs in the past 30 days in 2008, 15.2 million used marijuana, making it the most commonly used illicit drug in 2008. 160
- Among all ages, marijuana was the second most common illicit drug responsible for treatment admissions in 2008 after opioids, accounting for 17 percent of all admissions--outdistancing cocaine, the next most prevalent cause.<sup>161</sup>
- Marijuana dependency and abuse can be moderately improved by various psychotherapy treatments, but reduced use, rather than abstinence, may be the best clinicians can hope for at this time, a new review finds. 162
- Of all the illicit drugs, marijuana had the highest level of past-year dependence or abuse (4.2 million) in 2008. 163
- The proportion of admissions for marijuana as the primary substance of abuse increased from 13 percent in 1998 to 17 percent in 2008. <sup>164</sup>

- About four in five (79 percent) of adolescent treatment admissions involved marijuana as a primary or secondary substance. 165
- "[R]esearch shows that use of [marijuana] can lead to dependence. Some heavy users of marijuana develop withdrawal symptoms when they have not used the drug for a period of time. Marijuana use, in fact, is often associated with behavior that meets the criteria for substance dependence established by the American Psychiatric Association." <sup>166</sup>

### DANGERS TO NON USERS

### **DELINQUENT BEHAVIORS**

- In a 2008 paper entitled *Non-Medical Marijauna III: Rite of Passage or Russian Roulette*, CASA reported that in 2006 youth who had ever been arrested and booked for breaking the law were four times likelier than those who were never arrested to have used marijuana in the past year. <sup>167</sup>
- According to CASA in their report on *Criminal Neglect: Substance Abuse, Juvenile Justice* and the *Children Left Behind,* youth who use marijuana are likelier than those who do not to be arrested and arrested repeatedly. The earlier an individual begins to use marijuana, the likelier he or she is to be arrested.
- Marijuana is known to contribute to delinquent and aggressive behavior. A June 2007 report released by the White House Office of National Drug Control Policy (ONDCP) reveals that teenagers who use drugs are more likely to engage in violent and delinquent behavior. Moreover, early use of marijuana, the most commonly used drug among teens, is a warning sign for later criminal behavior. Specifically, research shows that the instances of physically attacking people, stealing property, and destroying property increase in direct proportion to the frequency with which teens smoke marijuana. 168

Marijuana use is strongly associated with juvenile crime. In 2006, youth who had ever been arrested and booked for breaking the law were four times likelier than those who were never arrested to have use marijuana in the past year.

In a report titled *The Relationship between Alcohol, Drug Use, and Violence among Students*, the Community Anti-Drug Coalitions of America (CADCA) reported that according to the 2006 Pride Surveys, during the 2005-2006 school year:

- Of those students who report carrying a gun to school during the 2005-2006 year, 63.9 percent report also using marijuana.
- Of those students who reported hurting others with a weapon at school, 68.4 percent had used marijuana.

- Of those students who reported being hurt by a weapon at school, 60.3 percent reported using marijuana.
- Of those students who reported threatening someone with a gun, knife, or club or threatening to hit, slap or kick someone, 27 percent reported using marijuana.
- Of those students who reported any trouble with the police, 39 percent also reported using marijuana. 169
- According to ONDCP, the incidence of youth physically attacking others, stealing, and destroying property increased in proportion to the number of days marijuana was smoked in the past year.<sup>170</sup>
- ONDCP reports that marijuana users were twice as likely as non-users to report they disobeyed school rules. <sup>171</sup>

### **DRUGGED DRIVERS**

- The principal concern regarding drugged driving is that driving under the influence of any drug that acts on the brain could impair one's motor skills, reaction time, and judgment. Drugged driving is a public health concern because it puts not only the driver at risk, but also passengers and others who share the road.<sup>172</sup>
- In Montana, where there has been an enormous increase in "medical" marijuana cardholders this past year, Narcotics Chief Mark Long told a legislative committee in April 2010 that "DUI arrests involving marijuana have skyrocketed, as have traffic fatalities where marijuana was found in the system of one of the drivers." <sup>173</sup>
- In 2008 there were 10 million persons aged 12 and older who reported driving under the influence of illicit drugs during the past year. The rate was highest among young adults aged 18 to 25.<sup>174</sup>
- Results from the Monitoring the Future survey indicated that in 2008 more than 12 percent of high school seniors admitted to driving under the influence of marijuana in the two weeks prior to the survey.<sup>175</sup>
- Recognizing that drugged driving is a serious health and safety issue, the National Organization for the Reform of Marijuana Laws (NORML) has called for a science-based educational campaign targeting drugged driving behavior. In January of 2008, Deputy Director Paul Armentano released a report titled, *Cannabis and Driving*, noting that motorists should be discouraged from driving if they have recently smoked cannabis and should never operate a motor vehicle after having consumed both marijuana and alcohol. The report also calls for the development of roadside, cannabis-sensitive technology to better assist law enforcement in identifying drivers who may be under the influence of pot. 176

- In a 2007 National Roadside Survey of alcohol and drug use by drivers, a random sample of weekend nighttime drivers across the United States found that 16.3 percent of the drivers tested positive for drugs, compared to 2.2 percent of drivers with blood alcohol concentrations at or above the legal limit. Drugs were present more than 7 times as frequently as alcohol. 177
- According to the National Institute of Drug Abuse (NIDA) funded study, a large number of American adolescents are putting themselves and others at great risk by driving under the influence of illicit drugs or alcohol. In 2006, 30 percent of high school seniors reported driving after drinking heavily or using drugs, or riding in a car whose driver had been drinking heavily or using drugs, as least once in the prior two weeks. Dr. Patrick O'Malley, lead author of the study, observed that "Driving under the influence is not an alcohol-only problem. In 2006, 13 percent of seniors said they drove after using marijuana while ten percent drove after having five or more drinks." "Vehicle accidents are the leading cause of death among those aged 15 to 20," added Dr. Nora Volkow, Director of NIDA. "Combining the lack of driving experience among teens with the use of marijuana and/or other substances that impair cognitive and motor abilities can be a deadly combination." <sup>178</sup>
- A June 2007 toxicology study conducted at the University of Maryland's Shock-Trauma Unit in Baltimore found that over 26 percent of injured drivers tested positive for marijuana. In an earlier study, the U.S. National Survey on Drug Use and Health estimated that 10.6 million Americans had driven a motor vehicle under the influence of drugs during the previous year.
- In a study of seriously injured drivers admitted to a Maryland Level-1 shock-trauma center, 65.7 percent were found to have positive toxicology results for alcohol and/or drugs. Almost 51 percent of the total tested positive for illegal drugs. A total of 26.9 percent of the drivers tested positive for marijuana. 180
- Driving under the influence of cannabis almost doubles the risk of a fatal road crash, according to a study published online by the *British Medical Journal* in December 2005. The study took place in France and involved 10,748 drivers who were involved in fatal crashes from October 2001 to September 2003. The risk of being responsible for a fatal crash increased as the blood concentration of cannabis increased. These effects were adjusted for alcohol and remained significant when also adjusted for other factors. The authors of this study assert that these results give credence to a causal relationship between cannabis and crashes. <sup>181</sup>
- A study of over 3000 fatally-injured drivers in Australia showed that when marijuana was present in the blood of the driver they were much more likely to be at fault for the accident. And the higher the THC concentration, the more likely they were to be culpable. 182
- Drugged driving has become a significant problem in the United Kingdom, where almost 20 percent of drivers involved in fatal accidents had traces of drugs in their systems. The government is planning to issue roadside kits, known as "drugalysers," which will test a motorist's saliva and enable the police to identify drivers who are behind the wheel after taking illegal drugs, including marijuana. <sup>183</sup>

- A large shock trauma unit conducting an ongoing study found that 17 percent (one in six) of crash victims tested positive for marijuana. The rates were slightly higher for crash victims under the age of eighteen, 19 percent of who tested positive for marijuana. <sup>184</sup>
- The National Highway Traffic Safety Administration (NHTSA) has found that marijuana significantly impairs one's ability to safely operate a motor vehicle. According to its report, "[e]pidemiology data from road traffic arrests and fatalities indicate that after alcohol, marijuana is the most frequently detected psychoactive substance among driving populations." Problems reported include: decreased car handling performance, inability to maintain headway, impaired time and distance estimation, increased reaction times, sleepiness, lack of motor coordination, and impaired sustained vigilance. 185

Some of the consequences of marijuana-impaired driving are startling:

- An off-duty Nevada Highway Patrol sergeant who caused a three-car crash killing a 47-year-old woman smoked marijuana a maximum of four hours before the accident. Tests showed that Sergeant Edward Lattin had 5.6 nanograms per milliliter of THC in his system before it metabolized and 26 nanograms per milliliter of THC in his blood after it was metabolized. State law allows drivers to have 2 nanograms per milliliter in their bodies before metabolizing and 5 nanograms per milliliter after it metabolizes to allow for issues such as secondhand exposure.
- In Largo, Florida, a 54 year-old male driver high on marijuana struck and killed a pedestrian. A witness said that Karl Merl made no effort to avoid the 83 year old woman. Merl had 11 nanograms per milliliter of THC in his blood. 187
- A 34-year-old male driver from Lower Paxton Township in Pennsylvania smoked marijuana and crashed his speeding car into another vehicle, killing an 87-year-old woman. Investigators of the February 2007 crash found marijuana in the driver's bloodstream, as well as partially smoked marijuana cigarettes in his car. 188
- An 18-year-old was charged with reckless homicide in Jasper, Indiana after authorities said he crashed a pickup into a tree while under the influence of marijuana, killing his 16-year-old sister and two other teens. Authorities said the youth was under the influence of marijuana when he tried to pass another vehicle at high speed. 189
- Police advised that a teen driver whose car veered into a school bus on August 22, 2006 in LaPorte, Michigan, was under the influence of marijuana. The teen was charged with operating while intoxicated, a Class A misdemeanor. Police said tests conducted at LaPorte Hospital detected marijuana in his bloodstream; however, since the drug can remain in the body for several weeks, the results did not show when he had used marijuana. While the teen was taken to the intensive care unit with a fracture to the upper left leg or hip, along with head injuries, none of the students on the bus were hurt. 190
- The driver of a charter bus, whose 1999 accident resulted in the death of 22 people, had been fired from bus companies in 1989 and 1996 because he tested positive for marijuana four

times. A federal investigator confirmed a report that the driver "tested positive for marijuana when he was hospitalized Sunday after the bus veered off a highway and plunged into an embankment." <sup>191</sup>

- In April 2002, four children and the driver of a van died when the van hit a concrete bridge abutment after veering off the freeway. Investigators reported that the children had nicknamed the driver "Smokey" because he regularly smoked marijuana. The driver was found at the crash scene with marijuana in his pocket. <sup>192</sup>
- A former nurse's aide was convicted in 2003 of murder and sentenced to 50 years in prison for hitting a homeless man with her car and driving home with his mangled body "lodged in the windshield." The incident happened after a night of drinking and taking drugs, including marijuana. After arriving home, the woman parked her car, with the man still lodged in the windshield, and left him there until he died. 193
- In 2005, an eight year-old boy was killed when he was run over by an unlicensed 16-year-old driver who police believed had been smoking marijuana just before the accident. 194
- Duane Baehler, 47, of Tulsa, Okalahoma was "involved in a fiery crash that killed his teenage son" in 2003. Police reported that Baehler had methamphetamine, cocaine and marijuana in his system at the time of the accident. <sup>195</sup>

# Other Harms From Marijuana

- The Los Angeles Police Department is investigating a series of robberies and shootings at marijuana dispensaries. Over a one week period in June 2010 a Northridge dispensary robbery left one employee in critical condition after being shot in the face; the shooting was the second at that business this year and the third dispensary to be targeted in three days. Two people were fatally shot in a pot shop robberies in Echo Park and Hollywood, and a third person was wounded. 196
- On March 4, 2010, a California man was killed after opening fire on two Pentagon Police Officers. In a story on MSNBC, the Friday before the incident, John Patrick Bedell's parents had warned local authorities that his behavior had become erratic and that he was unstable and had a gun. Bedell was diagnosed as bipolar and had been in and out of treatment programs for years. His psychiatrist, J. Michael Nelson, said "Bedell tried to self-medicate with marijuana, inadvertently making his symptoms more pronounced." Bedell had been given a prescription for medical use of marijuana in 2006 for chronic insomnia. According to long-time friend Reb Monaco "he was not a person who should have been issued a medical clearance to use marijuana, but he was." 198
- A marijuana dealer kidnapped and murdered a 15 year-old boy after he got angry at the teen's half-brother for owing him a \$2,500 drug debt. 199
- A 27-year-old lawyer, Oxford educated, fell to his death from the top floor of a London building following years of treatment for cannabis-induced mental illness. The February 2007

inquest revealed that he had been suffering from bi-polar affective disorder-manic depression, which "may have been triggered by cannabis use." <sup>200</sup>

- Marijuana also creates hazards that are not always predictable. In August 2004, two Philadelphia firefighters died battling a fire that started because of tangled wires and lamps used to grow marijuana in a basement closet.<sup>201</sup>
- All six people aboard a Piper Cherokee were killed when it crashed soon after take-off on Hamilton Island in North Queensland, Australia on September 2002. Toxicologist Professor Olaf Drummer told the inquest that blood tests on the 27-year-old pilot indicated that he had used marijuana either in the hours leading up to the crash or he could have been a regular user.
- Grant Everson and three friends armed with box cutters and a shot-gun slipped into Everson's parents' Chaska, Minnesota home demanding money to open a coffeehouse in the marijuana-friendly City of Amsterdam. Although Grant lost his nerve, his friends proceeded to shoot and kill his mother. All four were arrested. Their alibi was that they had been sleeping in the same Burnsville apartment after a night of smoking marijuana and playing video games. <sup>203</sup>
- The National Transportation Safety Board investigation of a small plane crash near Walnut Ridge, Arkansas, killing a passenger and the pilot, was a result of pilot error. Pilot Jason Heard failed to fly high enough and maintain enough airspeed to avoid a stall. The report notes that Pilot Jason Heard had enough marijuana in his system to have contributed to the accident.<sup>204</sup>

# MARIJUANA AND INCARCERATION

Federal marijuana investigations and prosecutions usually involve hundreds of pounds of marijuana. Few defendants are incarcerated in federal prison for simple possession of marijuana.

- In 2008, according to the United Sates Sentencing Commission (USCC), 25,337 people were sentenced in federal court for drug crimes under six offense categories. Marijuana accounted for 6,337 (25 percent). Looking even further, of the 6, 337 people sentenced, only 99 people or 1.6 percent, were sentenced for "simple possession" of marijuana. <sup>205</sup>
- According to a Bureau of Justice Statistics survey of state and federal prisoners published in October 2006, approximately 12.7 percent of state prisoners and 12.4 percent of federal prisoners were serving time for a marijuana-related offense. This is a decrease from 1997 when these figures were 12.9 percent and 18.9 percent respectively. 206
- Between October 1, 2005 and September 30, 2006, there were 6,423 federal offenders sentenced for marijuana-related charges in the U.S. Courts. Approximately 95.9 percent of the cases involved trafficking.<sup>207</sup>
- In Fiscal Year 2006, there were 25,814 offenders sentenced in federal court on drug charges. Of those, only 1.6 percent (406 people) were sentenced for simple possession. <sup>208</sup>

- According to the White House Office of National Drug Control Policy, "Many inmates
  ultimately sentenced for marijuana and possession were initially charged with more serious
  crimes but were able to negotiate reduced charges or lighter sentences through plea agreements
  with prosecutors. Therefore the ...figure for simple possession defendants may give an inflated
  impression of the true numbers, since it also includes these inmates who pled down from more
  serious changes." 209
- Findings from the 2008 Arrestee Drug Abuse Monitoring System (ADAM II), which surveys drug use among booked male arrestees in ten major metropolitan areas across the country, shows the majority of arrestees in each city test positive for illicit drug use, with as many as 87 percent of arrestees testing positive for an illegal drug. Marijuana is the most commonly detected drug at the time of the arrest. In seven of the ten sites arrestees who are using marijuana are using it on the average of every other day for the past 30 days. <sup>210</sup>

### THE FOREIGN EXPERIENCE WITH MARIJUANA

Many European countries are re-thinking their liberal marijuana policies in the face of evidence that cannabis use has significant mental and physical consequences and may lead to higher crime rates, increased social costs and degradation of their quality of life. "Few adults in Europe believe marijuana should be readily available for personal consumption," according to the Eurobarometer conducted by NS Opinion and Social in September-October, 2006. "Only 26 percent of respondents in 30 countries believe cannabis should be legalized."<sup>211</sup>

There is no uniform drug policy in Europe. Some countries have liberalized their laws, while others have instituted strict drug control policies, which mean that the so called "European Model" is a misnomer. Like America, the various countries of Europe are looking for new ways to combat the worldwide problem of drug abuse.

In recent years the European Monitoring Center for Drugs and Drug Addiction (EMCDDA) has reported a tendency among European countries to make a stronger distinction between those who use drugs and those who sell or traffic drugs. This distinction is reflected in the reduction of penalties for drug use in some countries, though others have not changed or increased penalties. EMCDDA reports that recently, the penalties for drug offenses in Europe have generally increased. "Most of the reported drug law offenses are related to use and possession for use rather than supply, and whereas offenses related to supply increased by 12 percent, those related to possession have increased by over 50 percent." Cannabis continued to be the drug most often associated with drug law offenses. The view expressed by some that in Europe you are unlikely to be charged with a drug offense if caught using marijuana is not supported by the data. <sup>212</sup>

# **Australia**

- On October 11, 2009 Premier Colin Barnett announced that the Government "would introduce legislation to repeal the Cannabis Control Act 2003 and make changes to the Misuse of Drugs Act 1981 and the Young Offenders Act 1994, sending a clear message that the current State Government did not endorse illicit drug use." "The new anti-cannabis laws will mark the start of the Liberal-National Government's fight to turn around eight years of a soft-on-drugs approach by the previous Labor government which has left lives ruined." 213
- In a reversal of their 2006 official position, the Australian Medical Association has called on the state government of Western Australia to introduce harsher marijuana laws. The AMA cited a recent review of international research on the links between marijuana and mental illness. AMA president Dr. Rosanna Capolingua said that "soft marijuana laws certainly do not help support the message that marijuana is not a soft drug." <sup>214</sup>
- Drug Free Australia official Craig Thompson is urging the community, young people in particular, to change their thinking about cannabis because of its serious effects on health. "The road fatalities caused by cannabis-intoxicated drivers, links to cannabis and psychosis, birth defects and greater potency of the drug are just a few issues of enormous concern," Mr. Thompson said.<sup>215</sup>
- Vanuatu authorities fear the use and cultivation of marijuana may be on the rise in the country
  and they are taking the problem seriously. Police have asked for current legislation on
  substance abuse to be amended, to enable the police to deal more effectively with offenders.<sup>216</sup>

### Canada

- In August 2006, Ontario gave new powers to police, utilities and municipalities to crack down on marijuana grow operations and methamphetamine labs running from residential locations. The province's anti-drug legislation was toughened to protect communities and allows police to work more effectively with citizens in identifying and uprooting marijuana operations. New provisions to the law include allowing water and power utilities officials to inspect buildings suspected to house marijuana grow operations. <sup>217</sup>
- After a large decline in the 1980s, marijuana use among teens increased during the 1990s as young people became "confused about the state of federal pot law" in the wake of an aggressive decriminalization campaign, according to a special adviser to Health Canada's Director General of Drug Strategy. Several Canadian drug surveys show that marijuana use among Canadian youth has steadily climbed to surpass its 26-year peak, rising to 29.6 percent of youth in grades 7-12 in 2003.

## Germany

• As The Netherlands cracks down on cannabis cultivation, it is pushing its drug gangs into Germany. Since 2004, 30 "cannabis plantations" have been shut down near the Dutch border. In addition, the Dutch government has forced a number of "coffee shops" that sell illegally produced hash and marijuana to move their operations out of city centers and closer to the Dutch-German border. Demand for marijuana among German youth is higher than ever, and investigators in Krefeld estimate that the coffee shops attract 54,000 customers each month, with 50,000 coming from Germany.<sup>219</sup>

## **The Netherlands**

- The Netherlands has led Europe in the liberalization of drug policy. "Coffee shops" began to emerge throughout The Netherlands in 1976, offering marijuana products for sale. Possession and sale of marijuana are not legal, but coffee shops are permitted to operate and sell marijuana under certain restrictions, including a limit of no more than 5 grams sold to a person at any one time, no alcohol or hard drugs, no minors, and no advertising. In The Netherlands it is illegal to sell or possess marijuana products. So coffee shop operators must purchase their marijuana products from illegal drug trafficking organizations.
- On January 2, 2007, the majority of the City Council in Amsterdam voted in favor of introducing a city-wide ban on smoking marijuana in public in areas where young people smoking joints have been causing a public nuisance. Their decision was based upon the success of the experimental ban in DeBaarsjes.
- According to a *New York Times* article, "The mayor (of Maastricht) wants to move most of the city's 16 licensed cannabis clubs to the edge of town, preferably close to the border" (with Belgium and Germany). Mayor Gerd Leers is reacting to growing concerns among residents who "complain of traffic problems, petty crime, loitering and public urination. There have been shootings between Balkan gangs. Maastricht's small police force...is already spending one-third of its time on drug-related problems." Cannabis clubs have drawn "pushers of hard drugs from Amsterdam, who often harass people on the streets." The clubs have also attracted people looking to buy marijuana in quantity. Piet Tans, the police spokesman also stated that "People who come from far away don't just come for the five grams you can buy legally over the counter...They think pounds and kilos; they go to the dealers who operate in the shadows."<sup>221</sup>
- Moving the clubs did not prove to be an effective strategy to deal with the problem. As of January 1, 2010, coffee shops in the province of Limburg (which includes Maastricht) will be accessible only to registered members. Justice Minister Ernst Hirsch Ballin also stated that "it would become easier to keep minors out of the coffee shops."
- Due to international pressure on permissive Dutch cannabis policy and domestic complaints over the spread of marijuana "coffee shops," the Government of the Netherlands has reconsidered its legalization measures. After marijuana became normalized, consumption nearly tripled from 15 percent to 44 percent among 18 to 20 year-old Dutch youth. 223 As a

result of stricter local government policies, the number of cannabis "coffeehouses" in the Netherlands was reduced – from 1,179 in 1997<sup>224</sup> to 737 in 2004, a 37 percent decrease in 7 years. <sup>225</sup>

- About 70 percent of Dutch towns have a zero-tolerance policy toward cannabis cafes.<sup>226</sup>
- Dr. Ernest Bunning, formerly with Holland's Ministry of Health and a principal proponent of that country's liberal drug philosophy, has acknowledged that, "[t]here are young people who abuse soft drugs . . . particularly those that have [a] high THC [content]. The place that cannabis takes in their lives becomes so dominant they don't have space for the other important things in life. They crawl out of bed in the morning, grab a joint, don't work, smoke another joint. They don't know what to do with their lives." 227
- "Contrary to what is often claimed by supporters of the Dutch drug policy, cannabis usage by young people in The Netherlands is not lower but actually higher than average in Europe," according to the findings of the 2007 European School Survey on Alcohol and Other Drugs (ESPAD). "The Netherlands scores above the European average. Over one-quarter (28 percent) of the youngsters aged 15 and 16 surveyed said they have used cannabis sometime in their life, compared with an average of 19 percent in Europe. Current Cannabis usage (at least once in the month prior to the survey) is more than double the European average in The Netherlands (15 percent versus 7 percent)." 228
- An article published in April 2009 summarizes the challenge now faced by the Dutch as a result of their drug policies. "The Netherlands has risen in the ranking order of 35 European countries from number 12 in 2003 to number 5 on recent cannabis usage...The Dutch youngsters, possibly due to the liberal climate, widely believe that cannabis is innocent. The proportion of school children that thinks regular cannabis usage involves big risks is the lowest in the Netherlands (50 percent) of all countries surveyed."<sup>229</sup>

#### **Singapore**

• As of August 1, 2007, marijuana users caught in Singapore face mandatory treatment in Drug Rehabilitation Centers. However, people who undergo the treatment and subsequently get arrested again for marijuana use face a mandatory minimum five-year prison sentence, plus three strokes of the cane. Three-time offenders get seven years in prison plus six strokes. <sup>230</sup>

## **Switzerland**

- In December 2008, 63 percent of Swiss voters voted against an initiative to decriminalize marijuana. The government, which opposed the proposal, feared that liberalizing marijuana would cause problems from neighboring countries. "This could lead to a situation where you have some sort of cannabis tourism in Switzerland because of something that is illegal in the EU would be legal in Switzerland," a government spokesman said.<sup>231</sup>
- Liberalization of marijuana laws in Switzerland has likewise produced damaging results. After liberalization, Switzerland became a magnet for drug users from many other countries. In

1987, Zurich permitted drug use and sales in a part of the city called Platzpitz, dubbed "Needle Park." By 1992, the number of regular drug users at the park reportedly swelled from a "few hundred at the outset in 1987 to about 20,000." The area around the park became crimeridden, forcing closure of the park. The experiment has since been terminated. 232

# **United Kingdom**

- A 2009 Scottish Social Attitudes Survey on public attitudes toward illegal drugs and misuse in Scotland found a reversal in the tolerant attitudes toward cannabis. Support for legalization fell from 37 percent in 2001 to 24 percent in 2009. Even among those that had tried cannabis, support for legalization fell from 70 percent in 2001 to 47 percent in 2009. Attitudes for prosecution for possession hardened during the same time period. In 2001, 51 percent felt that people should not be prosecuted for possession of a small amount of cannabis for personal use, but in 2009 only 34 percent concurred. Most startling was the fact that the shifts were most prevalent among 18-24 year-olds. In 2001 62 percent of this age group was in favor of legalization; in 2009, only 24 percent felt that way.
- In a statement to the press, Home Secretary Jacqui Smith announced on May 8, 2008 that cannabis is being reclassified back to a Class B drug, sending a strong message that the drug is harmful. Addressing the House of Commons, Secretary Smith cited the need to update public policies to match recent scientific evidence about the serious harms of marijuana use; "the enforcement response must reflect the danger that the drug poses to individuals, and in turn, to communities."
- A major newspaper in England, *The Independent on Sunday*, reversed its very public stance in support of marijuana. After a pro-cannabis editorial appeared in 1997, 16,000 people marched on London's Hyde Park. The editorial and the subsequent march were credited with forcing the government to downgrade the legal status of cannabis to class C. However, an editorial in the March 18, 2007 issue, titled "Cannabis: An Apology," states that the paper is reversing its decision. "In 1997, when this paper called for decriminalization, 1,600 people were being treated for cannabis addiction. Today, the number is 22,000." Concerns such as the record number of teenagers requiring drug treatment as a result of smoking skunk (a highly potent cannabis strain) and the growing proof that skunk causes mental illness were cited among the reasons for this reversal. <sup>235</sup>
- In March 2005, British Home Secretary Charles Clarke took the unprecedented step of calling "for a rethink on Labour's legal downgrading of cannabis" from a Class B to a Class C substance. Mr. Clarke requested that the Advisory Council on the Misuse of Drugs complete a new report, taking into account recent studies showing a link between cannabis and psychosis and also considering the more potent cannabis referred to as "skunk."<sup>236</sup>
- In 2005, during a general election speech to concerned parents, British Prime Minister Tony Blair noted that medical evidence increasingly suggests that cannabis is not as harmless as people think and warned parents that young people who smoke cannabis could move on to harder drugs.<sup>237</sup>

# 2006 World Drug Report

• The 2006 World Drug Report outlines significant global progress achieved in reducing the threat of drugs over 2005 and also highlights challenges to international efforts to stem the trafficking, use and production of dangerous, addictive drugs. Among the key findings of this report is that drug traffickers have invested heavily in increasing the potency of cannabis, which has produced devastating effects. As a result, the characteristics of cannabis are no longer that different from those of other plant-based drugs, such as cocaine and heroin. This report contends that differing messages as well as legislative changes by various governments regarding marijuana leave young people confused as to just how dangerous cannabis is.<sup>238</sup>

## OTHER NEWS

#### MARIJUANA USE AMONG YOUTH SHOWS SLIGHT INCREASE

- In December 2009, the Monitoring the Future Report indicated that after watching marijuana use have a gradual and steady decline since 1996 in the case of 8<sup>th</sup> graders and since 2001 for the 10<sup>th</sup> and 12<sup>th</sup> graders, this trend has changed.
- The results of the 2009 survey suggest that youth marijuana use is again on the increase. While there have not been any dramatic rises in marijuana use, there has been an upward trend for the past two to three years.
- Marijuana use is lower than 15 years ago, but declines have stalled for the past five years. Currently one in nine 8<sup>th</sup> graders used marijuana in the past year, more than one in four 10<sup>th</sup> graders did, and a third of 12<sup>th</sup> graders did. These numbers correlate with survey information showing perceptions of risk and peer disapproval went down and perceived availability went up.
- The 8<sup>th</sup> and 12<sup>th</sup> grades showed modest increases of .9 and .4 percentage points, respectively this year. This means use by 8<sup>th</sup> graders has increased 1.5 percentage points since the low in 2007, and use by 12<sup>th</sup> graders has increased 1.3 percentage points since the low in 2006.
- It is also noteworthy that perceived risk associated with regular marijuana use-usually a deterrent to use-has fallen for the past two years among 8<sup>th</sup> graders and for the past year for 10<sup>th</sup> graders. Only 12<sup>th</sup> graders showed a small further increase in perceived risk in 2009, and this after two years of showing a significant decrease in perceived risk.
- And while disapproval of marijuana remains relatively high in all three grades levels, the percentage of those disapproving is also showing a downward trend. 239
- In 2008 and 2009, 52 percent of U.S. high school seniors thought that there was a great risk of harm from smoking marijuana regularly, down from 58 percent in 2006.<sup>240</sup>

- The 2008 National Survey on Drug Use and Health (NSDUH) shows that among youth aged 12 to 17, the current illicit drug use rate remained stable from 2007 (9.5 percent) to 2008 (9.3 percent). Between 2002 and 2008, youth rates declined significantly for illicit drugs in general (11.6 to 9.3 percent) and for marijuana in particular (8.2 to 6.7 percent).<sup>241</sup>
- Just over one-third (34.2 percent) of adolescents 12- 17 years of age perceived great risk from smoking marijuana once a month. The perception of risk decreased with age. 242
- The 2009 Partnership Attitude Tracking Study (PATS), an annual survey of teens in grades 9 through 12 also shows a reversal in the declines in teen abuse and alcohol that hasn't been seen since 1998. Past year use of marijuana shows a 19 percent increase (from 32 percent in 2008 to 38 percent in 2009). Between 1998-2008 marijuana use had decreased by 30 percent. Underlying these increases are negative shifts in teen attitudes, particularly a growing belief in the benefits and acceptability of drug use and drinking. 243

#### INCREASED ERADICATION

- During 2009, DEA's Domestic Cannabis Eradication/Suppression Program supported the eradication of 9,474,867 plants in the top seven marijuana producing states (California, Kentucky, Oregon, Tennessee, Utah, Washington, and West Virginia). This is an increase of 2,325,335 eradicated plants over the previous year.<sup>244</sup>
- During the 2009 eradication season, a total of over 10.3 million marijuana plants were eradicated across the United States. This is a 2.38 million plant increase over 2008.<sup>245</sup>

## IN THEIR OWN WORDS

- "We created Prop. 215 so patients would not have to deal with the black market profiteers. But today it is all about the money. Most of the dispensaries operating in California are a little more than dope dealers with store fronts."
- **Reverend Scott T. Imler**, co-author of Proposition 215, the 1996 ballot initiative that legalized medical marijuana in California, Alternatives Magazine, Fall 2006, issue 39.
- "When we wrote Proposition 215, we were selling it to the public as something for seriously ill people... It's turned into a joke. I think a lot of people have medicalized their recreational use."
- **Reverend Scott T. Imler**, in an interview with Sandy Mazza, *San Gabriel Valley Tribune*, February 15, 2007.
- "No reasonable person would have gathered that they were voting on setting up marijuana stores back in 1996."
- Mark A.R. Kleinman, Professor of Public Policy, UCLA, December 27, 2006.
- "Quitting cannabis has been an important part of my recovery from mental illness. Marijuana can trigger psychosis. Every time I was hospitalized it was preceded by heavy marijuana use."
- **Margaret Trudeau**, ex-wife of former Canadian Prime Minister Pierre Trudeau, at the Canadian Mental Health Conference in Vancouver, February 15, 2007.
- "Many [people] subscribe to the vague, laissez-faire tolerance of cannabis which is increasingly prevalent among educated people in Western countries. That consensus needs to be challenged. Evidence of the damage to mental health caused by cannabis use is mounting and cannot be ignored." "It is time to explode the myth of cannabis as a "soft" drug."
- **Antonio Maria Costa**, Executive Director, United Nations Office on Drugs and Crime, March 2007.
- "Traditional 1960s herbal cannabis contained about 2-3 percent of the active ingredient tetrahydrocannabinol (THC); but today's skunk varieties may contain 15 or 20 percent THC, and new resin preparations have up to 30 percent. Skunk is to old-fashioned hash as whiskey is to lager. You can become an alcoholic just by drinking lager; but you have to drink a lot more lager than whiskey. Similarly, you can go psychotic if you smoke enough traditional marijuana, but you have to consume a lot more for a longer time than with skunk."
- **Professor Robin Murray**, London's Institute of Psychiatry, *The Independent on Sunday*, March 21, 2007.
- "I've been astonished by the way medical marijuana has become a commercial business... The energy is in medical marijuana for the younger generation, and there's an actual economy of it."
- **Dale Gieringer**, Director of California NORML and a Proposition 215 author, in an interview with Vanessa Grigoriadis, *Rolling Stone* magazine, February 7, 2007.

- "Our current experience with legal, regulated prescription drugs like Oxycontin shows that legalizing drugs in not a panacea. In fact, its legalization widens its availability and misuse, no matter what controls are in place."
- **Gil Kerlikowske**, Director, ONDCP, *Why Marijuana Legalization Would Compromise Public Health and Safety*, Annotated Remarks to the California Police Chiefs Association Conference, March 4, 2010.

# **APPENDIX**

# ACRONYMS USED IN "THE DEA POSITION ON MARIJUANA"

AAP American Academy of Pediatrics

ACS American Cancer Society

ADAM Arrestee Drug and Alcohol Monitoring

AMA American Medical Association
BBC British Broadcasting Company
BMA British Medical Association

CADCA Community Anti-Drug Coalitions of America

CB1 Cannabinoid Receptor 1: one of two receptors in the brain's

endocannabinoid (EC) system associated with the intake of food and

tobacco dependency.

CBD Cannabidiol, one of the cannabinoids found in marijuana

CMCR Center for Medicinal Cannabis Research
DASIS Drug and Alcohol Services Information System

DEA Drug Enforcement Administration

EMCDDA European Monitoring Center for Drugs and Drug Addiction

FDA Food and Drug Administration
HIV Human Immunodeficiency Virus
INCB International Narcotics Control Board

IOM Institute of Medicine IOP Intraocular Pressure

LSD Diethylamide-Lysergic Acid

MS Multiple Sclerosis

MTF Monitoring the Future, an annual survey conducted by the University of

Michigan on youth drug use

NHTSA National Highway Traffic Safety Administration

NIDA National Institute on Drug Abuse NMSS National Multiple Sclerosis Society

NORML National Organization for the Reform of Marijuana Laws

NSDUH National Survey of Drug Use and Health ONDCP Office of National Drug Control Policy

TEDS Treatment Episode Data Set

THC Tetrahydrocannabinol, the main psychoactive substance found in the

marijuana plant

USSC United States Sentencing Commission

# **ENDNOTES**

As of January 2010, the 14 states that have decriminalized certain marijuana use are Alaska, California, Colorado, Hawaii, Maine, Michigan, Montana, Nevada, New Jersey, New Mexico, Oregon, Rhode Island, Vermont, and Washington. In addition, Maryland has enacted legislation that recognizes a "medical marijuana" defense and Massachusetts replaced criminal penalties for adult possession of less than one ounce of marijuana with civil penalties. In Washington D.C. implementation of Ballot Initiative 59, which allows chronically ill patients to receive a doctor's prescription to use marijuana and buy up to two ounces a month from a city-sanctioned distribution center was signed by the Mayor in May 2010 and sent to Congress for approval.

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